

REMARKS

In the Office Action dated March 24, 2005, Claims 66-76 are pending. The Examiner has made the restriction requirement final. Thus, Claims 67, 69, 70 and 73 as well as SEQ ID NOs: 3 and 28-30 are withdrawn from consideration. Claims 66, 68, 71-72 and 74-76 drawn to SEQ ID NO: 5 are under examination on the merits. Claims 66, 68, 71-72 and 74-76 are rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking descriptive support. The Examiner also rejects claims 66, 68, 71-72, 74-76 under 35 U.S.C. §112, first paragraph, as allegedly lacking enabling support. Claims 66, 68, 72, 74-76 are rejected under 35 U.S.C. 112, second paragraph, as allegedly indefinite. Claims 66, 68, 72 are objected to for certain informalities. The Examiner further states that the 1449 form submitted by Applicants on January 7, 2002 is now missing in the Patent Office. The Examiner asks Applicants to resubmit the form and relevant references.

This Response addresses each of the Examiner's objections and rejections. Applicants therefore respectfully submit that the present application is in condition for allowance. Favorable consideration of all pending claims is therefore respectfully requested.

In the first instance, Applicants have deleted Claims 67, 69, 70 and 73 as well as the non-elected subject matter of SEQ ID NOs: 3 and 28-30, without prejudice. Applicants reserve the right to file one or more divisional applications to pursue the non-elected embodiments.

To favorably advance the prosecution, Applicants have amended Claims 68, 71, 74 and 76. Applicants also added Claims 77-78. Support for the amendment of Claims 68, 71, 74 and 76 can be found throughout the specification, e.g., at page 15, lines 20-24 and page 17, lines 59-12. Support for Claims 77-78 can be found in the specification, e.g., on page 15, lines

20-24 and original Claims 1, 3 and 6. No new matter is introduced. Applicants have also deleted Claims 66 and 72, without prejudice. Applicants reserve the right to file a continuation application directed to the subject matter of Claims 66 and 72. In view of the amendment, Applicants have also corrected the dependency of Claims 75-76.

Claims 66, 68, 72 are objected to for certain informalities. The Examiner states that Claims 66, 68, 72 recite non-elected subject matter. The Examiner requires Applicants to amend the claims such that they only recite SEQ ID NO: 5.

Applicants submit that Claims 66 and 72 are cancelled and Claim 68, as amended, does not recite non-elected subject matter. Accordingly, Applicants submit that the objection of Claims 66, 68 and 72 is obviated and withdrawal thereof is respectfully requested.

The Examiner states that the PTO 1449 form submitted by Applicants on January 7, 2002 is now missing in the Patent Office. The Examiner asks Applicants to resubmit the form and relevant references.

Applicants respectfully submit that the PTO 1449 form submitted by Applicants on January 7, 2002 was resubmitted to the Patent Office on July 26, 2005. Applicants also submit that all relevant references were submitted in the parent case of the present application, i.e. Serial No. 09/023,942, now U.S. Patent No. 6,479,274. According to 37 C.F.R. §1.98(d), Applicants are not required to resubmit the references in the present case, in any event.

Claim 66, 68, 72, 74-76 are rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite. The Examiner alleges that the term "medium stringency" in claims 66, 68, 72, and 74 is not defined in the specification. The Examiner asserts that a clear salt condition associated with the term is absent in the specification. The Examiner further alleges that the

term "derivative" in claims 72 and 74 is not defined. The Examiner also requires clarification of the phrase "hybridizing to any of those sequences" in claims 66, 72, and 75-76.

In response, Applicants respectfully direct the Examiner's attention to the specification, e.g., on page 17, lines 6-12, which explicitly teaches that a "medium stringency" condition (at 42°C) can be "at least about 16% v/v to at about 30% v/v formamide and from at least about 0.5M to about 0.9M salt for hybridization, and at least about 0.5M to at least about 0.9M salt for washing conditions." Applicants also observe that in the parent case, the same Examiner in fact allowed certain claims that recite the same term "medium stringency." Thus, Applicants respectfully submit that the condition "medium stringency" is clearly defined in the present application and the recited term is definite and clear.

With respect to the term "derivative," Applicants direct the Examiner's attention to the specification on page 19, lines 24-29, where the term "derivative" is explicitly defined. However, to favorably advance the prosecution, Applicants have amended the claims to delineate the term "derivative" to "glycosylation variant." Support for "glycosylation variant" can be found in the specification, e.g., on page 26, lines 10-13, which has a clear and definite meaning to one skilled in the art.

Applicants further submit that the claims as presently submitted no longer recite the phrase "hybridizing to any of those sequences." Thus, the Examiner's objection with respect to this phrase is rendered moot.

Accordingly, the rejection of Claim 66, 68, 72, 74-76 under 35 U.S.C. §112, second paragraph, is overcome and withdrawal thereof is respectfully requested.

Claims 66, 68, 71-72, 74-76 are rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking enabling support. While acknowledging that SEQ ID NO: 5 and 6 are enabled,

the Examiner alleges that the specification does not provide enablement for isolated serine proteinases encoded by nucleotide sequences having at least 50% similarity to SEQ ID NO: 5 or complements thereof, or proteinases encoded by a nucleotide sequence capable of hybridizing to SEQ ID NO: 5 or complements thereof under medium stringency conditions at 42°C as well as proteinases having at least 50% similarity to SEQ ID NO: 6. The Examiner alleges that no examples of such residues are provided either.

Applicants observe that the present application discloses certain novel proteinaceous molecules, e.g., serine proteinases, involved in or associated with regulations of cell activities and/or viability. (See the specification e.g., on page 3, lines 14-15.) The specification also discloses nucleotide sequences that encode the protein molecules recognized by the present invention. (See the specification, e.g., on page 5, lines 11-29.) Particularly, the specification discloses a serine proteinase in isolated form comprising an amino acid sequence of SEQ ID NO: 6 or an amino acid sequence encoded by a nucleotide sequence as set forth in SEQ ID NO:5 or a nucleotide sequence that is capable of hybridizing to the sequence set forth in SEQ ID NO: 5 under medium stringency conditions at 42 °C. (See the specification, on page 15, lines 20-24, page 17, lines 9-12 and the original Sequence Listing.)

Moreover, in an effort to expedite favorable prosecution on the merits, Applicants have cancelled Claims 66 and 72 and amended Claims 66, 68, 71, and 74-76 to delete the % similarity. Applicants have also added a recitation “wherein said nucleotide sequence encodes a serine proteinase” to Claims 68 and 74. Support for the amendment to the claims can be found throughout the specification and particularly at page 6, lines 17-23, for example. No new matter has been added.

Accordingly, Applicants submit that one skilled in the art in view of the disclosure of the specification can make and use the claimed proteinaceous molecules and compositions comprising such molecules, without undue experimentation.

Therefore, the rejection of Claims 66, 68, 71-72, 74-76 under 35 U.S.C. §112, first paragraph, is overcome and withdrawal thereof is respectfully requested.

Claims 66, 68, 71-72 and 74-76 are rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking descriptive support. Specifically, the Examiner alleges that claims 66, 68, 71, 72 and 74 are directed to the following four genera of polypeptides:

- 1) proteinases encoded by homologs having at least 50% similarity to SEQ ID NO: 5 or complements thereof;
- 2) proteinases having at least 50% similarity to SEQ ID NO: 6;
- 3) proteinases encoded by nucleotide sequences that hybridize to SEQ ID NO: 5 under "medium" stringency conditions; and
- 4) proteinases encoded by DNA sequences that hybridize to homologs having at least 50% similarity to SEQ ID NO: 5, under "medium" stringency conditions.

The Examiner alleges that the specification discloses only a single species (SEQ ID NO: 6) for each claimed genus which is insufficient to put one skilled in the art in possession of species within the claimed genus.

Applicants observe that, as stated above, the present application discloses nucleotide sequences encoding the claimed proteinases. (See the specification, e.g., on page 5, lines 11-29.) Particularly, the specification discloses a serine proteinase in isolated form comprising an amino acid sequence of SEQ ID NO: 6 or an amino acid sequence encoded by a nucleotide sequence as set forth in SEQ ID NO:5 or a nucleotide sequence that is capable of hybridizing to the sequence set forth in SEQ ID NO: 5 under medium stringency conditions at

42 °C. (See the specification, on page 15, lines 20-24, page 17, lines 9-12 and the original Sequence Listing.)

Applicants respectfully submit that a protein is sufficiently described if its coding DNA is described. Notably, the Examiner in the parent case did not raise any description rejection and allowed claims directed to SEQ ID NO: 5 or a nucleotide sequence that hybridizes to SEQ ID NO: 5 under medium stringency conditions.

In addition, and in an effort to expedite favorable prosecution on the merits, Applicants have amended Claims 66, 68, 71-72, 74-76 to delete the % similarity recitation.

Accordingly, contrary to the Examiner's allegation, Applicants respectfully submit that the claim set, as presently submitted, is sufficiently described as required by 35 U.S.C. § 112, first paragraph. One skilled in the art in view of the disclosure would have believed that the inventors had possession of the claimed molecules, including compositions thereof at the time the present application was filed.

Therefore, the rejection of Claims 66, 68, 71-72, 74-76 under 35 U.S.C. §112, first paragraph, is overcome and withdrawal thereof is respectfully requested.

In view of the foregoing amendments and remarks, it is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



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